



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1259; Directorate Identifier 2011-NM-181-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 777 airplanes. This proposed AD was prompted by reports of corrosion damage on the outer diameter chrome surface of the horizontal stabilizer pivot pins. Micro cracks in the chrome plating of the pivot pin, some of which extended into the base metal, were also reported. This condition, if not corrected, could result in a fractured horizontal stabilizer pivot pin, which may cause excessive horizontal stabilizer freeplay and structural damage significant enough to result in loss of control of the airplane. This proposed AD would require replacing the existing horizontal stabilizer pivot pins with new or reworked pivot pins having improved corrosion resistance, doing repetitive inspections after installing the pivot pins, and doing corrective actions if necessary. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Sutherland, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6533; fax: 425-917-6590; e-mail: james.sutherland@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2011-1259; Directorate Identifier 2011-NM-181-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of corrosion damage on the outer diameter chrome surface of the horizontal stabilizer pivot pins. Micro cracks in the chrome plating of the pivot pin, some of which extended into the base metal, were also reported. This condition, if not corrected, could result in a fractured horizontal stabilizer pivot pin, which may cause excessive horizontal stabilizer freeplay and structural damage significant enough to result in loss of control of the airplane.

Relevant Service Information

We reviewed Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011. The service information describes procedures for replacing the inner and outer pivot pins of the horizontal stabilizer with new or reworked pivot pins, including replacing the spacer with a new spacer or with one that has been determined to be without corrosion damage or other irregularities.

That service bulletin describes procedures for doing repetitive detailed inspections for cracks, corrosion damage, or other irregularities of the outer and inner pivot pins after their replacement, and doing corrective actions if necessary. That service bulletin also describes procedures for doing repetitive ultrasonic inspections for cracks of the outer pivot pins after their replacement, and doing corrective actions if necessary. Corrective actions include replacing any pivot pin having cracking, corrosion damage, or other irregularities, with a new or serviceable pivot pin.

The compliance time for replacing the inner and outer pivot pins is the later of: (1) before the accumulation of 16,000 total flight cycles, or within 3,000 days after the issuance of the original certificate of airworthiness or the original export certificate (whichever occurs first); and (2) within 750 days “after the original issue date of this service bulletin.” The first post-replacement inspection is within 32,000 flight cycles or 6,000 days (whichever occurs first after the pin replacement). The repetitive inspection interval is 16,000 flight cycles or 3,000 days (whichever occurs first); or 12,000 flight cycles or 3,000 days (whichever occurs first); depending on airplane group.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 155 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement of horizontal stabilizer pivot pins	16 work-hours X \$85 per hour = \$1,360	\$11,452	\$12,812	\$1,985,860
Repetitive inspections	22 work-hours X \$85 per hour = \$1,870 per inspection cycle	\$0	\$1,870 per inspection cycle	\$289,850 per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need these replacements.

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Pivot pin or spacer replacement	16 work-hours X \$85 per hour = \$1,360	\$11,452	\$12,812

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2011-1259; Directorate Identifier 2011-NM-181-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 777-200, -200LR, -300, -300ER, and 777F series airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by reports of corrosion damage on the outer diameter chrome surface of the horizontal stabilizer pivot pins. Micro cracks in the chrome plating of the pivot pin, some of which extended into the base metal, were also reported. This condition, if not corrected, could result in a fractured horizontal stabilizer pivot pin, which may cause excessive horizontal stabilizer freeplay and structural damage significant enough to result in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Pivot Pin Replacement

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, except as required by paragraph (i)(2) of this AD, replace the pivot pins of the horizontal stabilizer with new or reworked pivot pins, including replacing the spacer with a new spacer or with one that has been determined to be without corrosion damage or other irregularities; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011.

(h) Repetitive Inspections

At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011: Do detailed inspections for cracks, corrosion damage, or other irregularity of the outer and inner pivot pins; and an ultrasonic inspection for cracking of the outer pivot pins; and do all applicable corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011. Corrective actions must be done before further flight. Repeat the inspections at the applicable interval specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, except as provided by paragraph (i)(1) of this AD.

Note 1: The Accomplishment Instructions of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, might refer to other procedures. When the words “refer to” are used and the operator has an accepted alternative procedure, the accepted alternative procedure can be used to comply with the AD. When the words “in accordance with” are included in the instruction, the procedure in the design approval holder document must be used to comply with the AD.

(i) Exceptions

The following exceptions to Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, apply to this AD.

(1) Where the Repeat Interval column of tables 2 and 3 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, specify a compliance time, this AD requires compliance within the specified compliance time after the most recent inspection.

(2) Where paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 777-55A0018, dated July 27, 2011, specifies a compliance time “after the original issue date of this service bulletin,” this AD requires compliance within the specified compliance time “after the effective date of this AD.”

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to:

9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must

meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact James Sutherland, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: 425-917-6533; fax: 425-917-6590; e-mail: james.sutherland@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet <https://www.myboeingfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on November 23, 2011.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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